

ABSTRACT OF THE DISCLOSURE

A plurality of nonvolatile memory elements formed on element regions respectively isolated by element isolation regions on a main surface of a first conductive type semiconductor substrate, the nonvolatile semiconductor memory elements comprising a gate insulating film formed on the main surface of the semiconductor substrate, a plurality of floating electrodes formed along a first direction on the gate insulating film, a plurality of grooves formed among the plurality of floating electrodes, groove insulating films filled in the plurality of the grooves, a second conductive type impurity diffusion region formed along a second direction so as to sandwich the floating electrodes, interelectrode insulating films formed along the first direction on the plurality of floating electrodes and the groove insulating films, and control electrodes formed on the interelectrode insulating films.